

CLAIMS

1. A data processor comprising:

a receiving section that receives a data stream
5 including data representing first primary video to be
presented by switching a plurality of pictures one after
another at a first vertical scanning frequency and data
representing first auxiliary video to be presented
synchronously with the first primary video; and

10 a converting section for converting the data
representing the first primary video and the first auxiliary
video into data representing synthetic video to be presented
by switching the pictures at a second vertical scanning
frequency, which is different from the first vertical
15 scanning frequency,

wherein the data stream includes timing information
defining respective times to present the first primary video
and the first auxiliary video, and

wherein the converting section associates second
20 auxiliary video, having the same contents as the first

auxiliary video on a picture of the first primary video, with
a picture of second primary video, having the same contents as
the counterpart of the first primary video, thereby generating
synthetic video composed of the second primary video and the
5 second auxiliary video.

2. The data processor of claim 1, wherein the converting
section includes:

a video converting section for converting the data
10 representing the first primary video into data representing
the second primary video by changing the vertical scanning
frequencies;

a subtitle converting section for converting the data
representing the first auxiliary video into data representing
15 the second auxiliary video, identifying a picture of the
first primary video to be presented synchronously with letters
of the first auxiliary video, and associating letters of the
second auxiliary video, corresponding to the letters of the
first auxiliary video, with a picture of the second primary
20 video corresponding to the identified picture of the first

primary video; and

a synthesizing section for generating data representing the synthetic video by synthesizing together the second primary video data and the second auxiliary video data that
5 have been associated with each other.

3. The data processor of claim 1, wherein the converting section includes:

a synthesizing section for generating superposed video,
10 in which the first primary video and the first auxiliary video are synchronized with each other in accordance with the timing information and superposed one upon the other; and

a video converting section for converting data representing the superposed video into data representing the
15 synthetic video.

4. The data processor of claim 1, wherein the converting section converts the data representing the first primary video and the first auxiliary video and having a
20 predetermined resolution into data representing the synthetic

video that has a resolution different from the predetermined resolution.

5. The data processor of claim 4, wherein the converting
5 section converts the first primary video data and the first auxiliary video data of a film material into NTSC- or PAL-compliant synthetic video data.

6. The data processor of claim 5, wherein the converting
10 section converts one frame of the first primary video and the first auxiliary video of the film material into at least two fields of the PAL-compliant synthetic video with the same field inserted at regular intervals a number of times during the conversion into the fields.

15

7. The data processor of claim 1, wherein the data stream includes conversion permissibility information indicating whether or not the converting section may do conversion, and

20 wherein the converting section does the conversion when

the conversion permissibility information permits the
converting section to do so.

8. The data processor of claim 1, wherein the data
5 stream includes conversion designating information designating
the type of conversion to do, and

wherein the converting section does the type of
conversion that has been designated by the conversion
designating information.

10

9. The data processor of claim 1, further comprising an
input section, to which conversion designating information,
designating the type of conversion to do, is input,

wherein the converting section does the type of
15 conversion that has been designated by the conversion
designating information.

10. The data processor of claim 9, wherein the
converting section generates PAL-compliant synthetic video by
20 performing either a conversion of presenting each picture a

single time or a conversion of presenting a particular picture
a number of times in accordance with the conversion
designating information.

5 11. A data processing method comprising the steps of:

receiving a data stream including data representing
first primary video to be presented by switching a plurality
of pictures one after another at a first vertical scanning
frequency and data representing first auxiliary video to be
10 presented synchronously with the first primary video; and

converting the data representing the first primary video
and the first auxiliary video into data representing
synthetic video to be presented by switching the pictures at
a second vertical scanning frequency, which is different from
15 the first vertical scanning frequency,

wherein the data stream includes timing information
defining respective times to present the first primary video
and the first auxiliary video, and

wherein the converting step includes the step of
20 associating second auxiliary video, having the same contents

as the first auxiliary video on a picture of the first primary video, with a picture of second primary video, having the same contents as the counterpart of the first primary video, thereby generating synthetic video composed of the second
5 primary video and the second auxiliary video.

12. The data processing method of claim 11, wherein the converting step includes:

a video converting step for converting the data
10 representing the first primary video into data representing the second primary video by changing the vertical scanning frequencies;

a subtitle converting step for converting the data representing the first auxiliary video into data representing
15 the second auxiliary video, identifying a picture of the first primary video to be presented synchronously with letters of the first auxiliary video, and associating letters of the second auxiliary video, corresponding to the letters of the first auxiliary video, with a picture of the second primary
20 video corresponding to the identified picture of the first

primary video; and

a synthesizing step for generating data representing the synthetic video by synthesizing together the second primary video data and the second auxiliary video data that have been
5 associated with each other.

13. The data processing method of claim 11, wherein the converting step includes:

a synthesizing step for generating superposed video, in
10 which the first primary video and the first auxiliary video are synchronized with each other in accordance with the timing information and superposed one upon the other; and

a video converting step for converting data representing the superposed video into data representing the synthetic
15 video.

14. The data processing method of claim 11, wherein the converting step includes the step of converting the data representing the first primary video and the first auxiliary
20 video and having a predetermined resolution into data

representing the synthetic video that has a resolution different from the predetermined resolution.

15. The data processing method of claim 14, wherein the
5 converting step includes the step of converting the first primary video data and the first auxiliary video data of a film material into NTSC- or PAL-compliant synthetic video data.

10 16. The data processing method of claim 15, wherein the converting step includes the step of converting one frame of the first primary video and the first auxiliary video of the film material into at least two fields of the PAL-compliant synthetic video with the same field inserted at regular
15 intervals a number of times during the conversion into the fields.

17. The data processing method of claim 11, wherein the data stream includes conversion permissibility information
20 indicating whether or not the converting section may do

conversion, and

wherein the converting step includes the step of doing the conversion when the conversion permissibility information permits the converting step to do so.

5

18. The data processing method of claim 11, wherein the data stream includes conversion designating information designating the type of conversion to do, and

wherein the converting step includes the step of doing
10 the type of conversion that has been designated by the conversion designating information.

19. The data processing method of claim 11, further comprising the step of inputting conversion designating
15 information designating the type of conversion to do,

wherein the converting step includes the step of doing the type of conversion that has been designated by the conversion designating information.

20 20. The data processing method of claim 19, wherein the

converting step includes the step of generating PAL-compliant synthetic video by performing either a conversion of presenting each picture a single time or a conversion of presenting a particular picture a number of times in
5 accordance with the conversion designating information.